

## Training Marines to beat technology

### Prepared troops best defense against IEDs

By **Christian Lowe**

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While the Pentagon has worked for more than a year and invested billions of dollars to develop and field electronic jammers, bomb sniffers and other IED countermeasures - focusing primarily on technology - insurgents continue to sidestep the solutions with new tricks.

At the same time, the Marine Corps has set up an eight-man team devoted primarily to developing specialized tactics to keep leathernecks safe from improvised explosives. The IED Working Group, established in December 2003 and headquartered at the Marine Corps Warfighting Lab at Quantico, Va., works in concert with the Pentagon's Joint IED Task Force, but tailors solutions to Marines' needs.

"One of the biggest things that we stress here is training of Marines as they go into theater - that is huge," Maj. Bruce Patterson, chairman of the Corps' working group, said Aug. 15.

"One of the best things that you're going to do to reduce your casualties over there is have Marines that are trained up on the threat and the enemy and how the insurgency works to use IEDs against us."

Drawing primarily from lessons learned in Iraq, the working group sends mobile training teams to work with deploying Marine units. Civilian contractors with past Army Special Forces experience, Navy explosive ordnance disposal technicians and Office of Naval Research scientists help compile and teach the counter-IED course, Patterson said.

But their job is getting tougher every day, with insurgents increasingly employing bigger and more complex makeshift bombs. As the U.S. military spends billions to harden its vehicles with thicker armor, the insurgents simply string more ordnance together to penetrate them.

"These guys are using things that are big to defeat exactly what we've done in vehicle armoring," Patterson said. "I don't care how much armor you put on a vehicle, the enemy can put enough stuff in the ground to flip a tank over."

To counteract remotely detonated IEDs, the Corps has outfitted troops with more than 1,000 IED Countermeasures Equipment systems. Those are vehicle-mounted jammers that disrupt signals from low-frequency triggering devices such as garage door openers, remote car door openers and doorbells, according to congressional testimony submitted June 21 by Gen. William "Spider" Nyland, the outgoing assistant Marine commandant, at a House Armed Services Committee hearing. The Corps is upgrading its ICE systems to jam longer-range, low-frequency emitters, he added.

But the threat of cell-phone triggers is growing as the cellular network expands in Iraq, confronting Marines with a much tougher problem. The Navy and Marine Corps are testing a variety of systems to counter the threat, but a solution remains elusive.

"The bad guy can make [technology] changes a whole lot faster than we can, just because of the way we're set up to do business," Patterson said. "The bad guy does not have to do operational test and evaluation, he does not have to do systems checks and safety verification and all these other things."

"We can come up with an idea, and he can change to beat it in a couple of days."

Still, the best defense against an IED is the individual Marine and his intimate knowledge of the towns and villages he's patrolling every day.

"I think the properly trained Marine who knows his [area of operations] is far more effective than any of the gear out there," Patterson said. "They know their route, so they're looking for all those telltale signs every time they're out there."